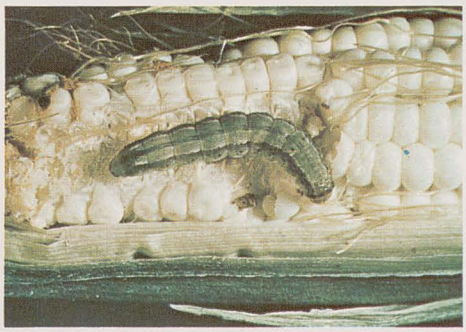
CORN INSECTS—ABOVE GROUND

For safe and effective use of insecticides, always identify the problem correctly.

1. European corn borer (early leaf feeding and mature borers)

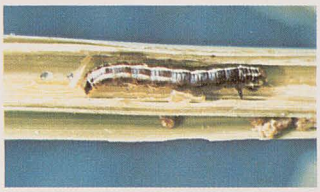
8. Grasshopper

2. Southwestern corn borer

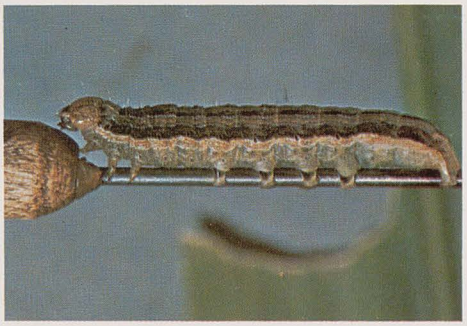


5. Corn earworm

9. Corn leaf aphid



3. Common stalk borer



6. Armyworm

10. Corn flea beetle and damage

4. Chinch bug

7. Corn rootworm beetles (left to right: Northern, Western and Southern) These beetles clip silks causing poor pollination shown at far right.

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1. **EUROPEAN CORN BORER,** *Ostrinia nubilalis* (Hubner). Corn borer moths emerge in spring and lay eggs on early-planted corn. Newly hatched larvae feed on leaves as they crawl toward the stalk. Many larvae congregate in the plant whorl and later crawl behind leaf sheaths and bore into the stalk. When mature, these borers change into egg-laying moths for a second generation. Most of these eggs are laid on late-planted corn and the emerging borers feed in the ears as well as bore into the stalks. Proper timing of insecticide treatments is important. Application must be made after eggs hatch, but before young borers become deeply imbedded in the plant whorl or enter the stalk.

2. **SOUTHWESTERN CORN BORER,** *Zeadiatraea grandiosella* (Dyar). This insect does not occur in Minnesota but is found in southern Illinois and western Kentucky. Its life cycle is similar to the European corn borer, except that in late summer, the Southwestern borers move toward the base of the stalks and overwinter in the tap root. In so doing, borers girdle the inside of the stalk just above the ground level causing the corn to fall over.

3. **COMMON STALK BORER,** *Papaipema nebris* (Guenee). The common stalk borer is a general feeder and will attack almost any kind of plant with a soft stem large enough to accommodate its body. In corn, the damage is usually confined to field margins where the borers have moved in from weedy areas. The insect not only bores into the stalks, but also feeds in the whorls of young corn, giving the plants a "chewed-up" and ragged appearance.

4. **CHINCH BUG,** *Blissus leucopterus* (Say). Chinch bugs are rarely found in Minnesota. Dry spring weather favors development. Damage to corn will usually occur in fields adjacent to small grain in which the spring brood (first generation) develops. As grain matures, the bugs crawl into the border rows of corn and gradually move deeper into the field. How far chinch bugs go depend on the number of bugs and size of corn. When mature, the bugs develop wings and fly away. The second generation is widely scattered and feeds on many plants of the grass family.

5. **CORN EARWORM,** *Heliothis zea* (Boddie). The corn earworm may occur throughout the state, but greatest damage is caused in southern Minnesota. Besides corn, it feeds on soybeans and other plants and is also known as the tobacco budworm, cotton bollworm, tomato fruitworm, and vetchworm. The insect varies greatly in color: worms found in Minnesota are tan, brownish, or green. There are several generations each year. Control is difficult and expensive; therefore, treatment of field corn is seldom practiced.

6. **ARMYWORM,** *Pseudaletia unipuncta* (Haworth). The armyworm feeds primarily on plants of the grass family. Outbreaks occur only in certain years and in areas favorable to their development. Eggs are laid in dense, grassy vegetation as in pastures, small grain fields, and along roadsides. As the worm matures, it leaves these areas and "marches" in search of food. Corn is usually damaged during these migrations. Later generations are held in check by disease, insect parasites, and other natural enemies.

7. **CORN ROOTWORM BEETLES,** *Diabrotica spp.* These are the adults of corn rootworms. The beetles commonly feed on corn silk. Clipping of silks prior to pollination can result in partly barren ears. Such damage usually takes place in late-silking fields since early-planted corn is normally pollinated before many beetles emerge. The northern and western species are responsible for most of the damage in Minnesota.

8. **GRASSHOPPERS,** *Family Acrididae.* Grasshoppers are general feeders. Damage to corn and other cultivated crops is usually caused by grasshoppers that migrate into the fields from border areas. This happens in late summer and also in dry years when natural vegetation no longer provides a suitable food supply. Damage is often confined to the border rows.

9. **CORN LEAF APHID,** *Rhopalosiphum maidis* (Fitch). These small, soft-bodied "plant lice" cluster on the tassels and upper parts of corn plants. Heavily infested plants may be barren or produce only partly filled ears. Most of this damage takes place before 50% of the tassels have emerged. Therefore treatments applied after tasseling are of little value. Early planted corn usually escapes injury and some hybrids are more tolerant than others.

10. **CORN FLEA BEETLE,** *Chaetocnema pulicaria* Melsheimer. These tiny, black, jumping beetles injure corn early in the season when growing conditions are poor and when the plants are less than 4- or 5-inches tall. Larger plants outgrow the damage. Heavily infested plants turn a greyish color and the leaves shrivel and die.

Current Control Information

The information and color illustrations presented here are designed to help you correctly identify some of the more common insects that attack corn above ground. These insects and the problems they cause do not change, but methods of dealing with them do. Contact your local county agent or state extension entomologists for current methods of control.

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